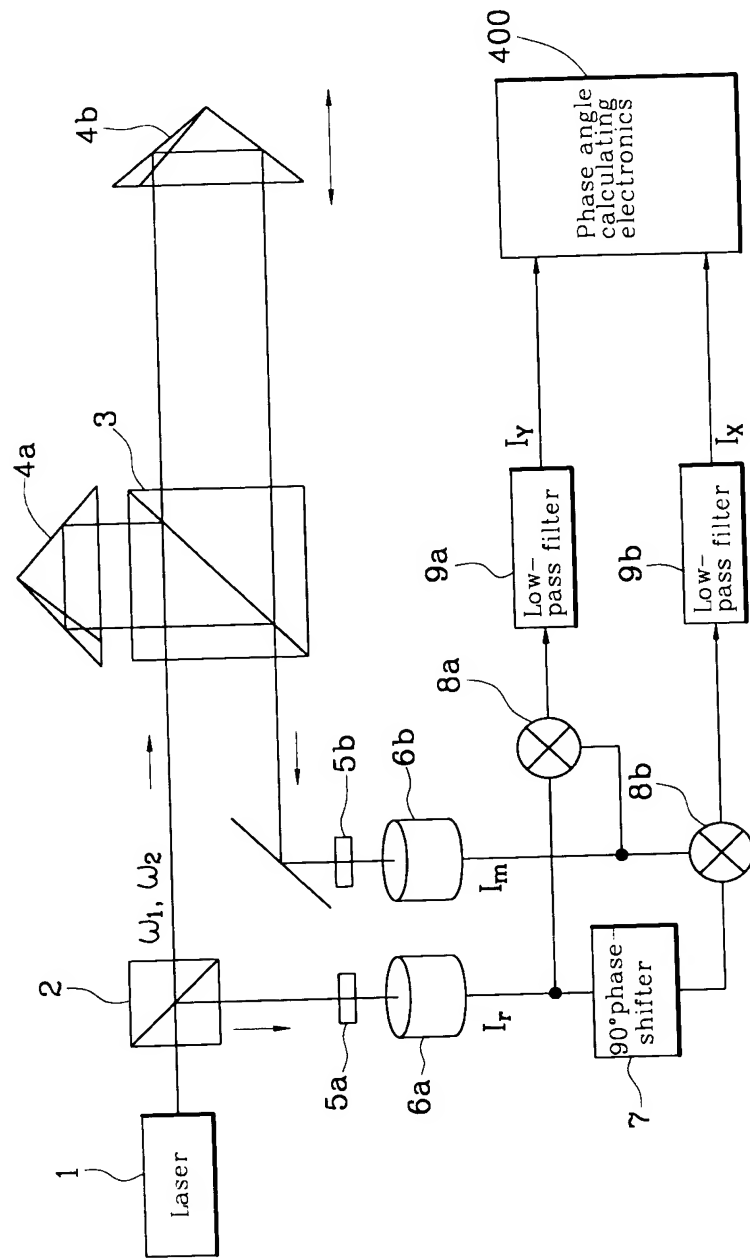


FIG. 1



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FIG. 2

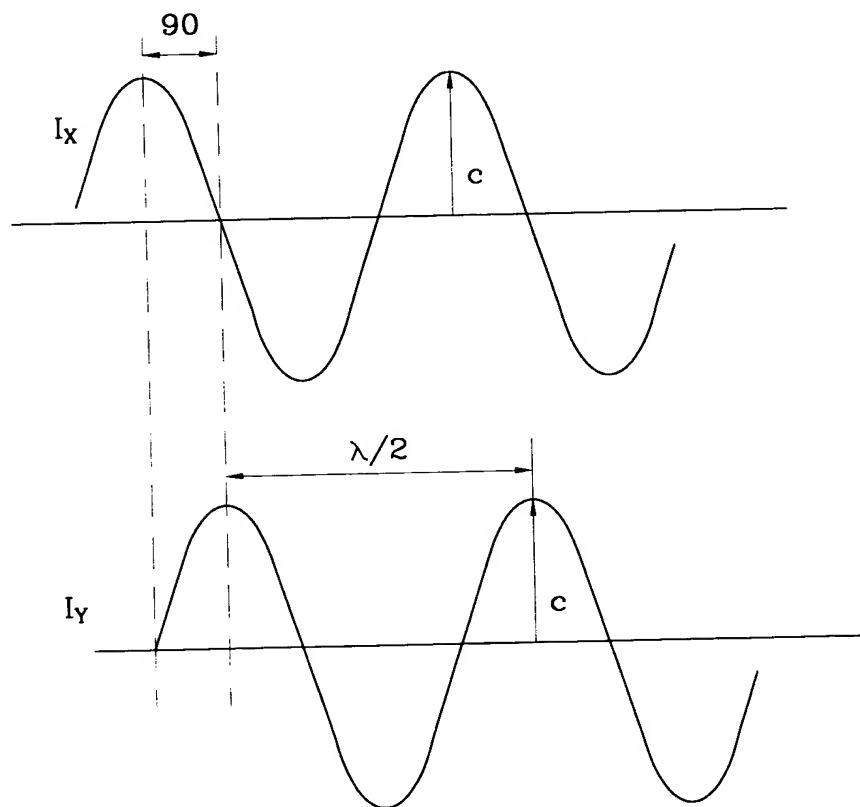


FIG. 3

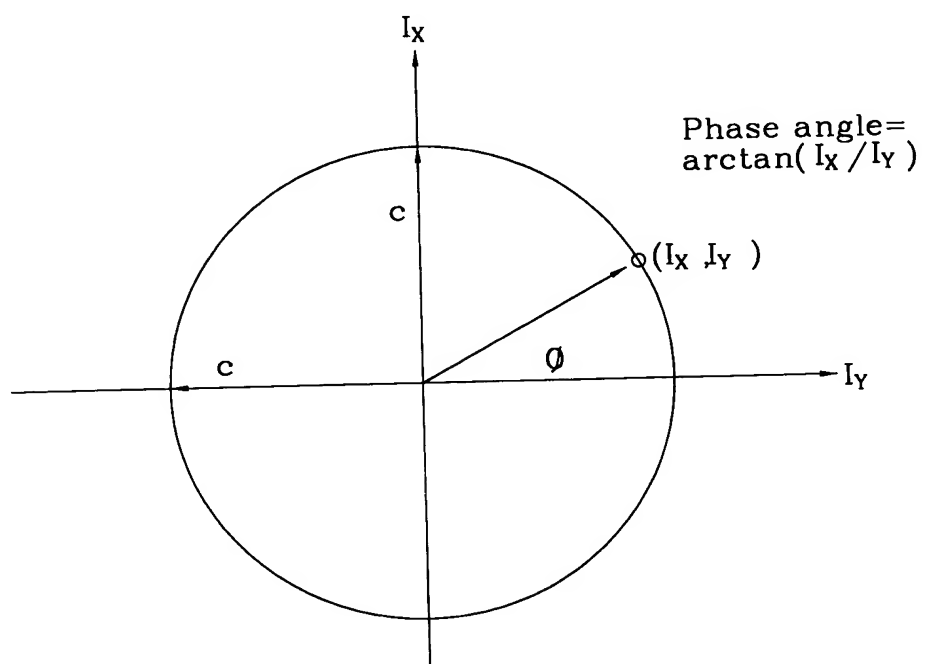


FIG. 4

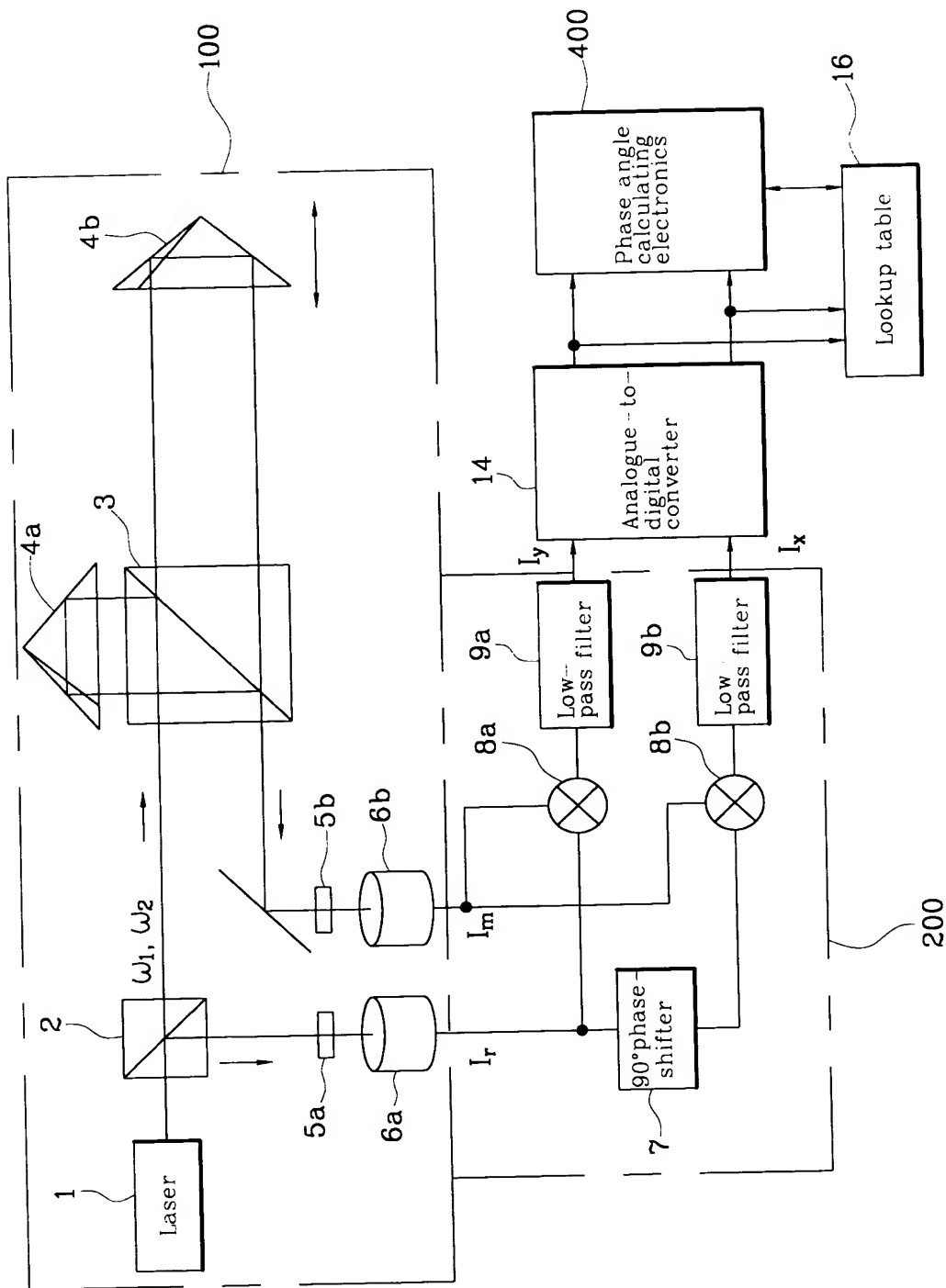


FIG. 5
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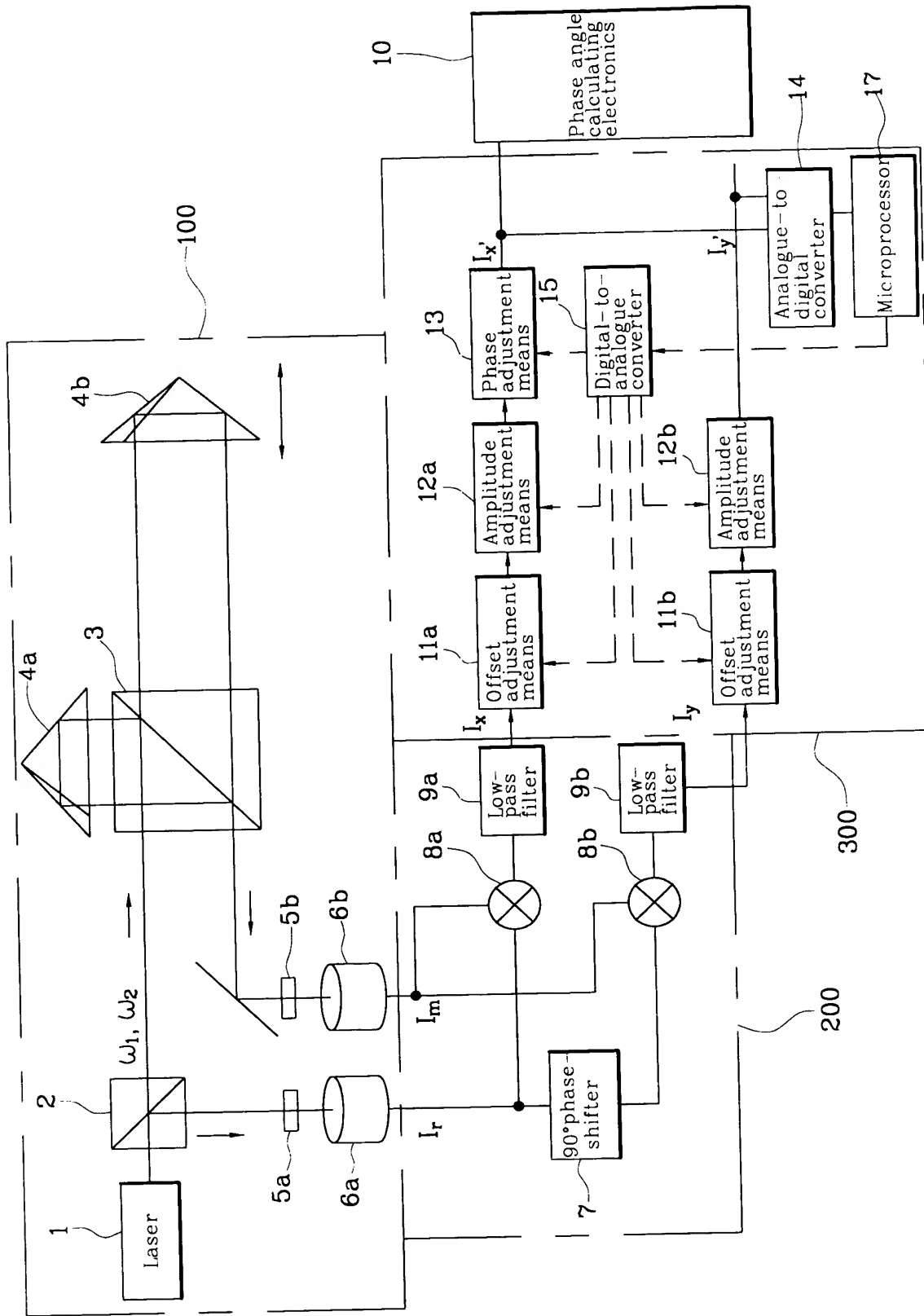


FIG. 6

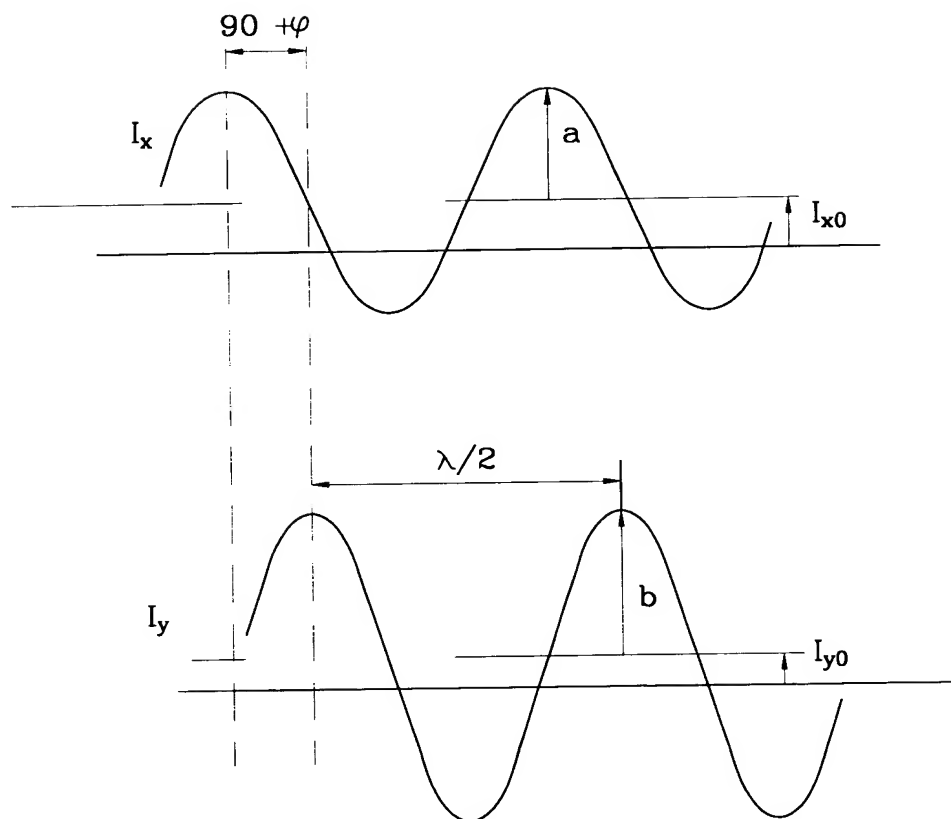


FIG. 7

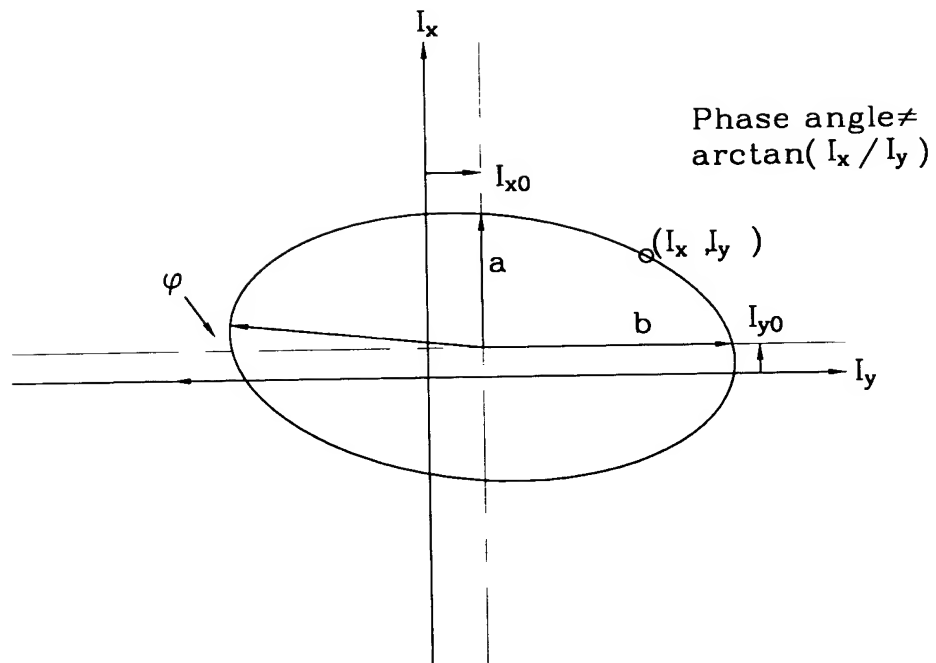


FIG. 8

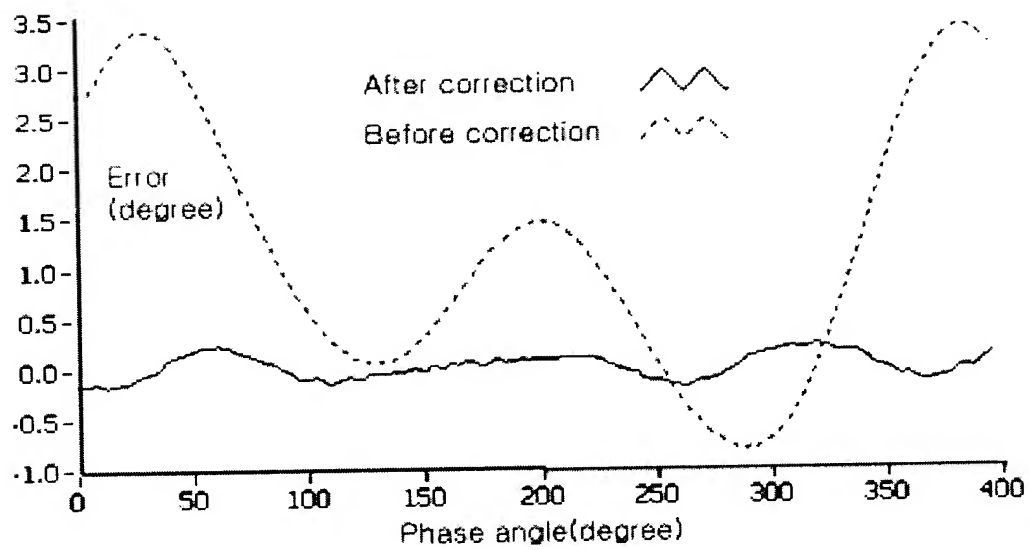


FIG. 9

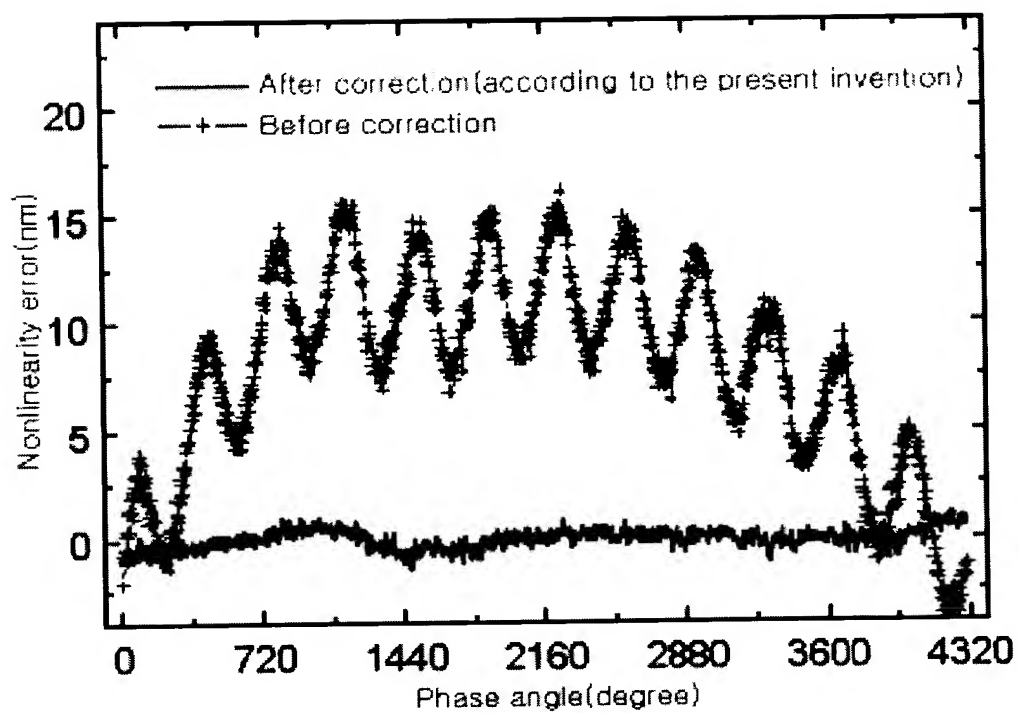


FIG.1

1: Laser
7: 90° phase shifter
9a: Low-pass filter
9b: Low-pass filter
400: Phase angle calculating electronics

FIG.2

FIG.3

Phase angle = $\arctan(I_x/I_y)$

FIG.4

1: Laser
7: 90° phase shifter
16: Lookup table
9a: Low-pass filter
9b: Low-pass filter
400: Phase angle calculating electronics

FIG.5

Laser
7: 90° phase shifter
9a: Low-pass filter
9b: Low-pass filter
10: Phase angle calculating electronics
11a: Offset adjustment means
11b: Offset adjustment means

12a: Amplitude adjustment means

12b: Amplitude adjustment means

13: Phase adjustment means

14: Analogue-to-digital converter

15: Digital-to-analogue converter

17: Microprocessor

FIG. 6

FIG. 7

Phase angle $\pm \arctan(I_x/I_y)$

FIG. 8

Error (degree)

Phase angle (degree)

After correction

Before correction

FIG. 9

Nonlinearity error

Phase angle (degree)

After correction (according to the present invention)

Before correction